ACTION

RECOMMENDATIONS OF THE P-16 LITERACY AND MATHEMATICS ALIGNMENT TEAMS

Agenda Item C-7
May 21, 2001

Recommendation

The P-16 Council recommends that the council approve the recommendations of the P-16 literacy and mathematics alignment teams in an effort to improve the transition from high school to postsecondary education and to reduce the need for postsecondary remediation in English and mathematics.

Background

The P-16 literacy and mathematics teams were formed to align competency standards, curricula, and assessment measures so students graduating from high school will not need remedial training at the postsecondary level. Composed of P-12 and postsecondary educators, the teams met for the last year to align what is taught in the high school curriculum and what is required by postsecondary admissions and placement standards. Parents, employers, labor leaders, students, and the chief academic officers of the public institutions reviewed preliminary recommendations. The P-16 Council endorsed these recommendations at its March meeting. Each team's recommendations are included as Attachments A and B. The full reports of both alignment teams accompany this agenda book and are available on the council's Web site. Included as Attachment C is a list of each team roster.

Implementing these recommendations will require policy changes at state, institutional, and local levels. The staffs of the Department of Education and Council on Postsecondary Education will develop specific plans.

Because of this work, Kentucky has been invited to join four other states in a national effort to develop guidelines for other states pursuing P-16 alignment.

Staff Preparation by Dianne M. Bazell

How to Reduce the Need for Postsecondary Remediation in English

Recommendations of the P-16 Literacy Alignment Team

For P-12 Educators

1. Expect students to demonstrate competence in several kinds of writing. By graduation, high school students should be prepared to write for a variety of audiences and purposes. Before beginning postsecondary study, students should practice using source materials to pose and support an argument in expository form.

2. Include performance scores for writing portfolio on student transcripts.

3. Teach reading, writing, oral communication, active listening, and media and technology literacy at all levels of the P-12 system.

For Postsecondary Institutions

4. Use the Kentucky Department of Education Holistic Scoring Guide to assess college-level writing competency. The literacy team does not unanimously recommend using KDE writing portfolio evaluations for postsecondary placement, but it views the KDE's criteria for proficient writing (defined audience and purpose, idea development, organization, sentence structure, language, and correct use of language in college) useful for evaluating writing at all levels, including college.

5. Publish and make easily available college placement criteria and policies**.** Each postsecondary institution should identify and publish criteria and policies for entry-level and remedial course placement in their catalogues and on their Web sites. The Council on Postsecondary Education should post this information on its Web site.

6. Review the effectiveness of placement mechanisms.
   - Postsecondary institutions should regularly evaluate the effectiveness of their placement tests and policies, including use of the ACT.
   - The Council on Postsecondary Education should regularly review the effectiveness of its Mandatory Placement Policy.

7. Train P-12 teachers in all content fields to teach reading, writing, oral communication, active listening, media literacy, and use of technology**.** The literacy team recognizes that all are connected. To reduce the need for remediation, teacher preparation programs should include training in five areas:
   - Reading: Prepare P-12 teachers to teach reading skills in all fields, be sensitive to reading disabilities, make referrals appropriately, and teach critical reading skills necessary to their disciplines. Reading should be a concern of teachers and faculty at all levels (not just through third grade) and in all disciplines.

- Writing: Students need frequent writing assignments in all content areas, not only English composition and literature. Students learn the importance of writing for a variety of purposes only if writing is taught throughout a curriculum.
- Oral communication: The ability to communicate orally affects a student's ability to write and to succeed at the postsecondary level. Though postsecondary institutions do not require remedial work in oral communication, it should be included in the curriculum and teacher preparation programs.
- Active listening: Listening is related to reading critically and communicating clearly. Active listening contributes directly to success in postsecondary study and in the work world. Though most postsecondary institutions do not offer separate courses in listening, postsecondary educators should teach the skill of active listening in their programs, including those preparing P-12 teachers.
- Media literacy and use of technology: Postsecondary institutions in Kentucky do not require remedial study either in computer use or in media literacy. The literacy team recognizes the need, in learning and in life, to be able to interpret an array of visual media, including advertisements and political propaganda. Technology commands ever-greater importance in our institutions and in the workplace. Students entering postsecondary study or work without computer skills and media literacy are unprepared.

8. Train postsecondary faculty in all disciplines how to teach writing, critical reading, effective oral communication, active listening, and media and technological literacy. Good teachers demonstrate literacy skills through effective reading and writing assignments and discussion. Include the skill of demonstrating literacy in graduate school training.

For Classroom Teachers at All Levels

9. Form local alliances among P-12 teachers and postsecondary faculty focusing on reading, writing, oral communication, active listening, and media and technological literacy across content areas at all levels.

How to Reduce the Need for Postsecondary Remediation in Mathematics

Recommendations of the Mathematics Alignment Team

The Mathematics Alignment Team endorses the competencies outlined in the Kentucky Department of Education Program of Studies in mathematics, the KDE Grade 11 Mathematics Core Content, and the recommendations of the KDE Algebra II Task Force as an initial list of required competencies.

For P-12 Educators

1. Prepare all students to begin studying Algebra I no later than ninth grade.

2. Require all students to take a rigorous mathematics course every year they are in high school. Taking mathematics every year of high school reinforces and helps students remember what they have learned. For many students, it is better to spread the current three years of mathematics over four years to learn concepts more thoroughly. New courses are needed.

3. Distribute the description of Algebra II, part of the Pre-College Curriculum, prepared by the KDE Algebra II Task Force to high school teachers. Include it in the KDE Program of Studies. High school teachers need to know what they are expected to teach, high school students need to know what they are expected to learn, and postsecondary faculty need to know what competencies courses listed on a high school transcript indicate.

4. Use the Kentucky Early Mathematics Testing Program before grade twelve (and ideally before grade eleven) to identify and remedy deficiencies before college entrance.

5. Provide ongoing mathematics-based professional development for teachers. Support it through the Teachers' Professional Growth Fund.

6. Teach mathematics using a variety of techniques to reach students with different learning styles and to develop a deep level of understanding. Use real problems to highlight the relevance of mathematics.

For Postsecondary Institutions

7. Offer a range of general education mathematics courses, including alternatives to the calculus preparatory sequence, to address the needs of all students, regardless of majors.

8. Teach mathematics using a variety of techniques to reach students with different learning styles and to develop a deep level of understanding. Use real problems to highlight the relevance of mathematics.

9. Provide courses and other ongoing mathematics-based professional development opportunities for P-12 teachers, at times and in places and ways that ensure access.

10. Provide incentives to mathematics faculty and faculty in mathematics-related fields to encourage an active role in P-12 teacher preparation and professional development.

11. Provide incentives and recognition to mathematics faculty for professional development that includes content and teaching. Mathematics faculty should participate in professional development that teaches multiple methods for teaching mathematics to diverse learners.

For Teachers of Mathematics at All Levels

12. Form local alliances within disciplines. Mathematics faculty at two-year and four-year institutions and P-12 mathematics teachers should work together to address diverse student learning needs. Increased disciplinary collegiality can improve developmental learning opportunities for students. Local disciplinary alliances can raise awareness among students of study and career opportunities requiring mathematics. They can also improve P-12 and postsecondary teaching.

13. Form groups as needed to implement these recommendations. The P-16 Council should continue to call on mathematics faculty, faculty in mathematics-related fields, and K-12 educators to improve the teaching and learning of mathematics.

14. Establish a mathematics alignment Web site for instructors and students. The P-16 Council should form a task force to develop a mathematics Web site, available through both the Council on Postsecondary Education and the Department of Education Web sites. A teacher link could provide course offerings at K-12 and postsecondary levels, lesson plans, and teaching modules for addressing a variety of student needs. The student link would offer sample problems, information on careers requiring mathematics, and postsecondary placement policies.

P-16 Council
Literacy Alignment Team

Peggy Bertelsman, Chair
Steve Kay, Convenor

Members	Institution	Department
Ted Brown	Murray State University	English
Linda Calendrillo[1]	Western Kentucky University	Chair, English
Wallace Campbell	Pikeville College	Vice President for Academic Affairs Dean of the College
Gail Cummins	University of Kentucky	English; Director, Writing Center
Paul Ellis	Northern Kentucky University	Director, Learning Assistance Program
Alyce Grover	Somerset Community College	Communications
Dewey Hensley	Oldham High School	English
Brian Huot	University of Louisville	English; Director, Writing Center
Robert Lockhart	Morehead State University	English, Foreign Language, Philosophy
Nedra Lundberg	Kentucky State University	Literature, Language, Philosophy
Sonia Milrod	Campbell County Schools	Curriculum Supervisor
Crystal Neal	Powell County Middle School	English
Angela Reed	Jefferson County Public School	English
Arlie Smith	Morgan County Schools	Assessment Coordinator
Paul Upchurch	Elizabethtown Independent Schools	Superintendent
Frank Williams	Eastern Kentucky University	Philosophy

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[1] Replaced Barbara Burch, Provost and Vice President of Academic Affairs.

P-16 Council
Mathematics Alignment Team

Lydia Carol Gabbard, Chair
Steve Kay, Convenor

Members:	Institution	Department
Ann Booth	Lincoln County High School	Mathematics; Past President, Kentucky Council of Teachers of Mathematics
William Bush	University of Kentucky	Mathematics Education
Jayne Carter	Hazard Community College	Mathematics Developmental Education
Frank Cheatham	Campbellsville University	Mathematics; Vice President; Dean, Academic Affairs
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Kenoye Eke[2]	Kentucky State University	Political Science; Associate Vice President for Academic Affairs; Acting Dean, Academic Affairs
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